

At page 21, line 16, replace "inveniton" with --invention--.

At page 25, line 16, replace "andd" with --and--.

At page 25, line 17, replace "resuspened" with --resuspended--.

NE At page 25, line 24, replace "polyethyleneimine" with --polyethylene--.

At page 25, line 26, replace the second occurrence of "the" with --The--.

At page 26, line 8, replace "inveniton" with --invention--.

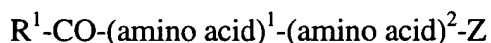
IN THE CLAIMS

Cancel claims 4 and 9.

Amend claim 1 to read:

1 (amended). A reagent for preparing a scintigraphic imaging agent [for imaging a site within a mammalian body], comprising a specific binding compound [that is] having a molecular weight of less than 10,000 daltons [in molecular weight] , the compound being covalently linked to a radiolabel complexing moiety having a formula selected from the group consisting of:

I.



wherein (amino acid)¹ and (amino acid)² are each independently any primary α- or β-amino acid that does not [comprise] contain a thiol group;

Z is [a thiol-containing moiety that is] selected from the group consisting of cysteine, homocysteine, isocysteine, penicillamine, 2-mercaptoethylamine [or] and 3-mercaptopyrrolamine;

R¹ is lower (C¹-C⁴) alkyl or a covalent linkage to the [specific binding] compound;

wherein

when Z is cysteine, homocysteine, isocysteine or penicillamine, [the] Z comprises a carbonyl group [of said moiety is] covalently linked to a hydroxyl group, a NR³R⁴ group wherein R³ and R⁴ are each independently H or lower (C¹-C⁴) alkyl, an amino acid, or a peptide comprising 2 to 10 amino

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acids, [and wherein R^3 and R^4 are each independently H or lower (C^1-C^4) alkyl];

[or] and

II.

$Y-(\text{amino acid})^2-(\text{amino acid})^1-NHR^2$

wherein Y is [a thiol-containing moiety that is] selected from the group consisting of cysteine, homocysteine, isocysteine, penicillamine, 2-mercaptoacetate [or] and 3-mercaptopropionate;

(amino acid)¹ and (amino acid)² are each independently any primary α - or β -amino acid that does not [comprise] contain a thiol group;

R^2 is selected from the group consisting of H, a [or] lower (C^1-C^4) alkyl, and [or] a covalent linkage to the [specific binding] compound;

wherein when Y is cysteine, homocysteine, isocysteine or penicillamine, [the] Y comprises an amino group [of said moiety is] covalently linked to -H, an amino acid, or a peptide comprising 2 to 10 amino acids; and

wherein the [radiolabel complexing] moiety is [covalently] linked to the [specific binding] compound through R^1 , R^2 , a sidechain group of [the sidechain of] (amino acid)¹, [or] a sidechain group of (amino acid)², [or the] an amino group of cysteine, homocysteine, isocysteine, or penicillamine, or a carboxyl group of cysteine, homocysteine, isocysteine or penicillamine.

Amend claim 2 to read:

2 (amended). The reagent of Claim 1 wherein the radiolabel complexing moiety is selected [fromn] from the group consisting of [moieties having the formula]:

$-(\text{amino acid})^1-(\text{amino acid})^2-(\text{amino thiol})$,

and $(\text{mercaptocarboxylic acid})-(\text{amino acid})^1-(\text{amino acid})^2$ -,

wherein (amino acid)¹ and (amino acid)² are each independently any primary α - or β -amino acid;

(amino thiol) is selected [fromn] from the group consisting of cysteine, isocysteine, homocysteine, [penicilamine] penicillamine, 2-mercaptoethylamine, and 3-mercaptopropylamine; and

(mercaptocarboxylic acid) is selected [fromn] from the group consisting of cysteine, isocysteine, homocysteine, [penicilamine] penicillamine, 2-mercaptoacetic acid, and [3-mercaptopropionic] 3-mercaptopropionic acid.

B. Condit

Amend claim 3 to read:

3 (amended). The reagent of Claim 2 wherein the radiolabel complexing moiety is selected from the group consisting of [moieties having the formula] -Gly-Gly-Cys- [or] and Cys-Gly-Gly-.

Amend claim 5 to read:

5 (amended). A reagent according to Claim 1 wherein the [specific binding] compound is a [a specific binding] peptide comprising 4 to 100 amino acids.

B. Condit

Amend claim 6 to read:

6 (amended). The reagent of Claim [1] 5 wherein the [specific binding] peptide and the [radiolabel binding] moiety are [covalently] linked through one or more amino acids.

Amend claim 10 to read:

10 (amended). The reagent of Claim [9] 24 wherein the polyvalent linking moiety is [*bis*-succinimidylmethylether] selected from the group consisting of *bis*-succinimidylmethylether, 4-(2,2-dimethylacetyl)benzoic acid, *tris*(succinimidylethyl) amine, 4-(O-CH₂CO-Gly-Gly-Cys.amide)acetophenone, *bis*-succinimidohexane, *tris*(2-chloroacetamidoethyl)amine, [and] 1,2-*bis*-(2-(chloroacetamido)ethoxy)ethane, [or a derivative thereof] a derivative of *bis*-succinimidylmethylether, a derivative of 4-(2,2-dimethylacetyl)benzoic acid, a derivative of *tris*(succinimidylethyl) amine, a derivative of 4-

B. Condit

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(O-CH₂CO-Gly-Gly-Cys.amide)acetophenone, a derivative of bis-succinimidohexane, a derivative of tris(2-chloroacetamidoethyl)amine, and a derivative of 1,2-bis-[2-(chloroacetamido)ethoxy]ethane.

Amend claim 18 to read:

18 (amended). A composition of matter having a formula selected from the group consisting of:

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contd.
cyclo(N-methyl)FYW_DKV.Hcy.(CH₂CO.GGC.amide)₁
cyclo(N-methyl)FYW_DKV.Hcy.(CH₂CO.GGCK.amide)₁
cyclo(N-methyl)FYW_DKV.Hcy.(CH₂CO.GGCR.amide)₁
cyclo(N-methyl)FYW_DKV.Hcy.(CH₂CO.GGCRD.amide)₁
cyclo(N-methyl)FYW_DKV.Hcy.(CH₂CO.GGCRK.amide)₁
cyclo(N-methyl)FYW_DKV.Hcy.(CH₂CO.GGCRR.amide)₁
cyclo(N-methyl)FYW_DKV.Hcy.(CH₂CO.GGCKK.amide)₁
cyclo(N-methyl)FYW_DKV.Hcy.(CH₂CO.GGCKKK.amide)₁
cyclo(N-methyl)FYW_DKV.Hcy.(CH₂CO.GGC.Orn.amide)₁
cyclo(N-methyl)FYW_DKV.Hcy.(CH₂CO.GGCKDK.amide)₁
cyclo(N-methyl)FYW_DKV.Hcy.(CH₂CO.GGC.Orn.D.Orn.amide)₁
cyclo(N-methyl)FYW_DKV.Hcy.(CH₂CO.GGC.Orn.D.amide)₁
cyclo(N-methyl)FYW_DKV.Hcy.(CH₂CO.KKC.amide)₁
cyclo(N-methyl)FYW_DKV.Hcy.(CH₂CO.KRC.amide)₁
cyclo(N-methyl)FYW_DKV.Hcy.(CH₂CO.RRC.amide)₁
cyclo(N-methyl)FYW_DKV.Hcy.(CH₂CO.KKCK.amide)₁
cyclo(N-methyl)FYW_DKV.Hcy.(CH₂CO.GRCK.amide)₁
cyclo(N-methyl)FYW_DKV.Hcy.(CH₂CO.GKCR.amide)₁
CH₂CO.Y_D.Apc.GDCGGC_{Ac}GC_{Ac}GGC.amide₁
CH₂CO.Y_D.Apc.GDCGGC_{Ac}GC_{Ac}GGCG.amide₁
CH₂CO.Y_D.Apc.GDCGGSSGGCG.amide₁
CH₂CO.Y_D.Apc.GDCGGCG.amide₁
GRGDGGC₁
GLFCGC.amide₁
GRGDGGGGC₁
F_DFYW_DKTFTGGC.amide₁
acetyl.CGGY.(CH₂)₄-piperidine₁
[or] and
β-glucan-(=NNHCO.(CH₂)₃CO.)GGC.amide

Amend claim 19 to read:

19 (amended). The reagent of Claim [1] 5 wherein the [specific binding] peptide [is comprised of] comprises a linear peptide or a cyclic [peptides] peptide.

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amended.
Amend claim 20 to read:

20 (amended). The reagent of Claim 1 wherein the [imaged site within a mammalian body is] compound binds to a thrombus site.

Amend claim 21 to read:

21 (amended). The reagent of Claim 1 wherein the [imaged site within a mammalian body is] compound binds to a site of an infection.

Please add new claims 24 through 33 as set forth below.

24. A multimer comprising a polyvalent linker covalently linked to at least two copies of the reagent of claim 1, said multimer having a molecular weight less than about 20,000 daltons.

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amended.
25. A peptide reagent comprising

a first peptide that localizes at a target site in a mammalian body; and

a second peptide that binds technetium-99m and has a formula selected from the group consisting of Gly-Gly-Cys, Gly-Gly-Pen, Gly-Gly-Gly-Cys, Gly-Gly-Gly-Pen, and D-stereoisomers thereof,

wherein the first peptide is covalently linked to the second peptide.

26. The reagent of claim 25, further comprising technetium-99m complexed with the second peptide.

27. A method of labeling a peptide with technetium-99m comprising the steps of

a) combining:

a solution containing a peptide reagent comprising

a first peptide that localizes at a target site in a mammalian body; and

a second peptide that binds technetium-99m and has a formula selected from the group consisting of Gly-Gly-Cys, Gly-Gly-Pen, Gly-Gly-Gly-Cys, Gly-Gly-Gly-Pen, and D-stereoisomers thereof, wherein the first peptide is covalently linked to the second peptide,

and technetium-99m for a time and at a temperature sufficient to allow a complex to form between the second peptide and the technetium-99m; and

b) recovering radiolabeled peptide.

28. The method of claim 27, wherein the solution further comprises stannous ions, in an amount sufficient to label the reagent with technetium-99m.

29. The method of claim 28, wherein the technetium-99m is in the form of pertechnetate.

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30. A method of radiolabeling a peptide reagent with technetium-99m, wherein the reagent comprises:

a first peptide that localizes at a target site in a mammalian body; and

a second peptide capable of binding technetium-99m and has a formula selected from the group consisting of Gly-Gly-Cys, Gly-Gly-Pen, Gly-Gly-Gly-Cys, Gly-Gly-Gly-Pen, and D-stereoisomers thereof, the first peptide being covalently linked to the second peptide,

comprising the steps of:

- PS Beantel
- a) combining said reagent with an amount of stannous ion sufficient to reduce said technetium-99m in an aqueous medium to form a solution;
 - b) reacting the solution with the technetium-99m; and
 - c) recovering the radiolabeled reagent.

31. The method of claim 30, wherein the reagent and the stannous ion are provided in lyophilized form.

32. A method for visualizing a site within a mammalian body comprising the steps of:

- a) administering to the body a peptide reagent comprising
a first peptide that localizes at a target site in a mammalian body; and

a second peptide complexed with technetium-99m and has a formula selected from the group consisting of Gly-Gly-Cys, Gly-Gly-Pen, Gly-Gly-Gly-Cys, Gly-